

THE GENUS *VALDIVIA* SHANNON
(DIPTERA: SYRPHIDAE)

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The genus *Valdivia* Shannon includes five previously described species based on nine specimens collected in Chile and Patagonia. Nine more specimens from Chile have come to me in a miscellaneous collection from the Chicago Museum of Natural History. Included in this material is a representative of a new species and the allotype of the type species, *V. darwini* Shannon.

Etcheverry and Shenefelt (1962) have illustrated the genitalia of Chilean Syrphidae, but did not include this genus. Illustrations of the two species studied are included in this paper and will complement their work.

I am indebted to the following people for help with this material: R. L. Coe of the British Museum of Natural History, who kindly compared a male *darwini* with the holotype; W. W. Wirth, of the United States National Museum, who compared the new species described with *nigra* Shan. and Aubertin; S. Camras, who kindly loaned these specimens through the Chicago Museum of Natural History; and K. Weisman, who prepared the illustrations.

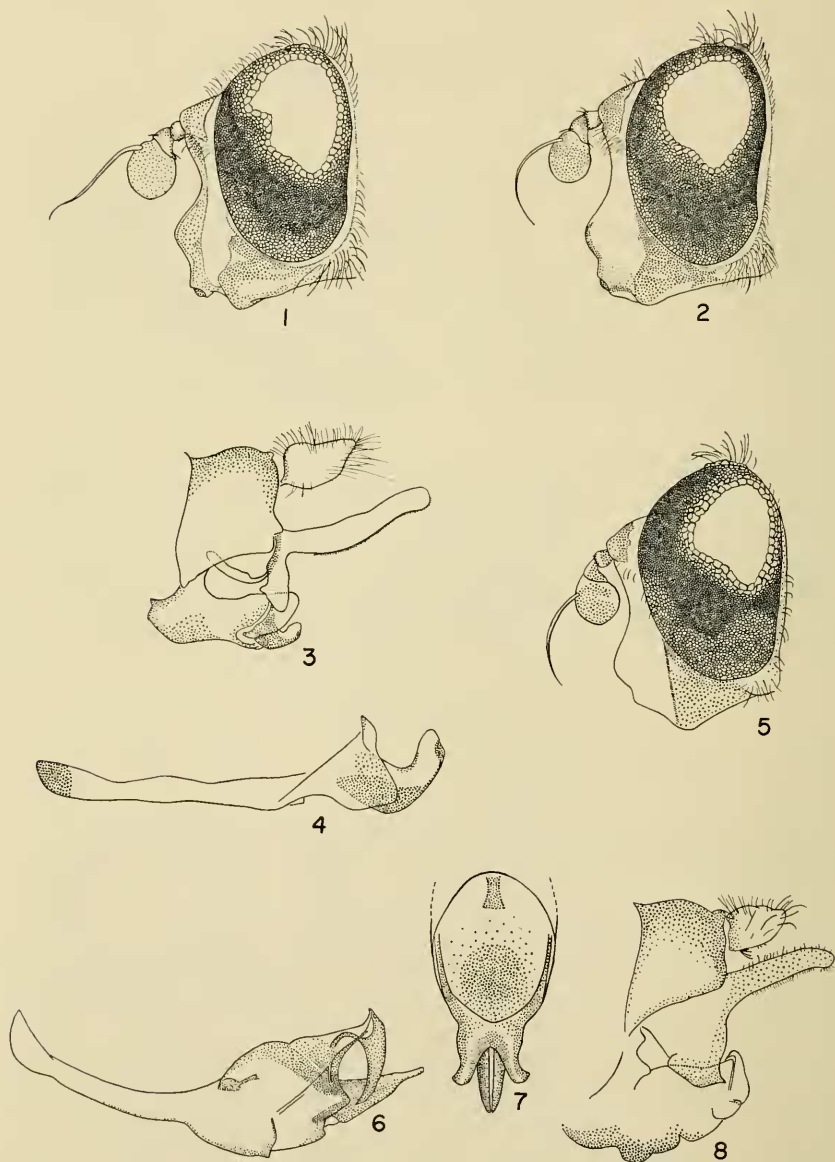
Valdivia darwini Shannon
(Figs. 1-4)

1927. Proc. U.S.N.M. 70 (2658): 32.

Shannon selected this species as type of the genus. His description is based upon a single male from Valdivia, Chile. Shannon's description is in general agreement with the males at hand even though the brown color mentioned is probably a function of age since the males and females are generally black, with purplish iridescent reflections.

Male. I would like to add the following to Shannon's original description: arista dark brown; face with at least the tubercle shining, usually in the form of an arrow, with the apex directed dorsally, this area occupying the lower third of the face; cheeks shining brown or black; facial pollen continued as a narrow band along the eye orbits and uniting above the shining black antennal prominence; a distinct depressed line separates the front from the ocellar triangle, while a raised orange area contrasts with the black of the front and vertex; anterior ocellus remote from posterior ocelli; pile of head yellow, limited to sparse patches on the ventral slopes of the antennal prominence, posterior to cheeks, upper angles of front, and on occiput; black

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Figs. 1-4. *V. darwini* Shamon. 1. Female head; 2. Male head; 3. Male genitalia; 4. Axial system of male genitalia; Figs. 5-8. *V. camrasi*, n. sp. 5. Male head; 6. Axial system of male genitalia; 7. Dorsal view of penis; 8. Male genitalia.

pile on ocellar triangle; scutum black with short black appressed pile; pollinose margins of scutum with yellow to golden pile, mostly erect, interrupted laterally only at the post-alar callosities which are brownish, and bear golden, or mixed golden and black bristles; anterior margin with weakly developed lateral triangular pollinose spots and a more or less linear stripe; a pair of small pollinose spots at the inner ends of the transverse suture; sternopleuron with a pollinose stripe; pleurae with limited areas of sparse pile, highly polished and devoid of pile on lower portion of sternopleuron, and in the area anterior to the mesopleuron; posterior femora with black spines below arranged in two rows, with long golden pile above; scutellum with yellow pile on surface and projecting from the subscutellar fringe below; halteres yellow to brown, the knobs usually brown; squamae yellow; wing veins brown; segments 2-4 of abdomen with very narrow yellow or white pollinose apices, although weakly developed in some individuals; lateral pile on 1st and 2nd segments very long and yellow, short black and appressed medially; short yellow pile in basal corners of 3rd segment, short, dark and appressed medially and apically; fourth abdominal tergite with short black setae, a few short yellow setae in lateral apical corners; male genitalia with elongate styli; axial system composed of ejaculatory apodeme, chitinous box, and ejaculatory hood; ejaculatory hood heavily sclerotized and simple.

Female. Like the male with the following differences: face with a broad shining stripe reaching from the oral margin to the antennae and occupying the medial one-half of the face; second abdominal segment not as elongate as in male, narrowed near base and flaring apically to twice its basal width; 3rd and 4th segments broader than long; with pale pollinose stripes apically on segments 2-4, absent on 5.

Males. Chile: Rio Blanco, 21/24 II 54, 1050-1400 m., 1; Icalma, 31 XII 58, 2; Bulamala, 23/31 I 54, 1100-1400 m., 1; Curacautin, Rio Blanco, 27/31 I 59, 1; all collected by L. Pena.

Females. Chile: Rio Blanco, 21/24 II 54, 1050-1300 m. There is a second female with the same data as the allotype. The allotype is being deposited in the British Museum of Natural History.

***Valdivia camrasi* n. sp.**

(Figs. 5-8)

Male. Face and tubercle covered with pruinose pollen; cheeks shining and dark brown; antennae brown, the third segment orange at base; sparse white pile present posterior to cheeks, below antennal prominence, on occiput, and at margin between front and ocellar triangle; pile on ocellar triangle black.

Thorax black with purplish reflections; lateral scutal pollinose stripe gradually narrowed from humeri to anterior margin of post-alar callosity, pollinose stripe absent before scutellum and with sparse black

and yellow pile; dorsum of scutum covered with dense appressed black setae; pleurae with sparse yellowish pile but large areas devoid of pile and polished; squamae yellow; halteres yellow with the knob reddish; legs with coxae and trochanters black, front four femora orangish-red with posterior dark stains basally, hind femora narrowly reddish basally and apically, black on middle $\frac{3}{4}$; front four tibiae reddish, 1st pair darkened apically; hind tibiae reddish but with dark stains medially; 5th tarsal segments pale yellow, 4th darkened; wings yellow, the veins deep yellow with a darkened area sub-apically. Abdomen black, 1st and 2nd abdominal segments with diffuse reddish-orange areas medially; tergal pile long, erect and white on 1st and 2nd segments, shorter, dense, white pile on anterior angles of 3rd segment and black appressed elsewhere; sternites 1-4 with fine pale pile except for a few long black hairs in apical corners of 4th sternite; postabdomen black with short, coarse pile; 4th sternite with lightly sclerotized area apicomediaally, which apparently coincides with the placement of the elongate claspers; male genitalia with extreme development of the axial system in which paired sclerotized bars make up the ejaculatory hood as well as a peculiar dorsal development of paired clasping structures.

Holotype. Chile: Icalma, 29 XII 58, L. Pena. The type is being deposited in the United States National Museum.

This species differs from all described species in several important characteristics. It is possible that *V. nigra* Shannon may be confused with *camrasi*. These two species can be easily separated by the following: in *nigra*, the femora and tibiae are black except for the extreme femoral apex and tibial base, while in *camrasi*, there are only posteriorly located black stains on the femora and tibiae; in *nigra*, the wings are brown, while in *camrasi*, they are yellow with a darkened area sub-apically; in *nigra*, the facial tubercle is black and shining while in *camrasi*, the face is golden pollinose.

The genitalia of *camrasi* while obviously similar in epandrial structure differ remarkably in penis structure. The study of the other species, as specimens become available, may necessitate a sub-generic splitting of this interesting genus.

The following key is adapted from Shannon and Aubertin (1933).

KEY TO SPECIES

1. Femora and tibia entirely orange 2
 Femora and tibia with black markings 3
2. Antennae dark brown, dorsum of thorax with a marginal band of grey tomentum **darwini** Shannon
 Antennae orange, thorax entirely shining black **edwardsi** Shannon and Aubertin
3. Abdomen reddish **ruficauda** Shannon
 Abdomen black 4
4. Tarsi gleaming white, wing-tip noticeably yellowish-hyaline **albimanus** (Bigot)

- Tarsi dirty white, wing-tip not hyaline 5
 5. Facial tubercle shining black **nigra** Shannon
 Facial tubercle covered with golden pollen **camrasi**, n. sp.

LITERATURE CITED

- Etcheverry, M., and R. D. Shenefelt.** 1962. A Preliminary Study of the Genitalia of Chilean Syrphidae. Verhandlungen. XI Internationaler Kongress für Entomologie, Vienna 1960. Band I: 207-214.
Shannon, R. C. 1927. A Review of the South American Two-winged Flies of the Family Syrphidae. Proc. U.S. Nat. Mus. 70(9): 1-34.
Shannon, R. C., and D. Aubertin. 1933. Diptera of Patagonia and South Chile. Part VI (Fascicle 3): 120-170.

THE FAMILY TANYPEZIDAE IN NORTH AMERICA

(DIPTERA, ACALYPTIRATAE)

In the most recent papers on the family Tanypezidae, by Hennig (1936, Deutsch. Entom. Zeits. 1936: 27-38; 1937, in Lindner, Die Fliegen der pal. Reg. 5 [fam. 44]: 1-6) and Enderlein (1936, Deutsch. Entom. Zeits. 1936: 39-47), it is stated that the generic reference of the two North American species described in the genus *Tanypeza* is uncertain. I have examined the material in the United States National Museum collections, including the types of the two North American species, and come to the following conclusions:

Tanypeza longimana Fallén, 1820, Opomyzides Sueciae: 4 (= *T. luteipennis* Knab and Shannon, 1916, Insecutor Inscitiae Menstruus 4: 34); *new synonym*.

Tanypeza picticornis Knab and Shannon, 1916, Insecutor Inscitiae Menstruus 4: 35, valid species closely related to *T. longimana*.

These two species are therefore both referable to the genus *Tanypeza sensu strictu*. They constitute the only known species in the group and share the following characters, which distinguish this group from the others found in the Neotropical Region: only 1 pair of *dc*, close to scutellum; 2 pairs of *fo*; male hind femur with oblique mesobasal row of bristly black hairs and hind trochanter with mesoventral row of somewhat smaller similar hairs; aedeagus beyond fulcrum rod-like, elongate. They may be separated as follows:

KEY TO SPECIES OF *Tanypeza* s. s.

- Antenna with 3rd segment dark brown to blackish; front at least as wide as postocellar white-pruinose spot, which is separated from posterior ocelli by less than one ocellar diameter; presutural thoracic bristle lacking; separation of ends of 3rd and 4th wing veins nearly or quite equal to length of *ta*; tip of wing evenly rounded (Europe; Maine, N.H., N.Y., Va., Ga., Mich., Ill., Wis., N.D., S.D., Ont., Alta.) **T. longimana** Fallén
 Antenna with 3rd segment yellowish; front considerably narrower than postocellar white-pruinose spot, which is separated from posterior ocelli by more than 1.5 times ocellar diameter; smaller presutural thoracic bristle usually present; separation of ends of 3rd and 4th wing veins usually much less than length of *ta*; tip of wing rather pointed, much more rounded anteriorly than posteriorly (Va., Md., Mich.) **T. picticornis** Knab and Shannon

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